
IMPACT OF INCLUSIVE SPORTS AND GAMES ON THE INDEPENDENT LIFE SKILLS OF THE INTELLECTUALLY CHALLENGED INDIVIDUALS

Farheen Dossal

Director Administration,
Karachi Vocational Training Centre,
Sindh, Pakistan
Email: farheen.amir@kvtc.org.uk

Afshan Rahat

Assistant Professor,
Department of Special Education, University of Karachi,
Sindh, Pakistan
Email: afshan_rahata@yahoo.com

Sabeen Dossal

Family Relations Manager,
Karachi Vocational Training Centre,
Sindh, Pakistan
Email: sabeen.waqar@kvtc.org.uk

ABSTRACT

The independent life skills of the Students with Intellectual Disabilities has always been a challenge for the parents and the society. These people face more failure and rejection from the society. The study aims to investigate the effects of inclusive sports program on the cognitive development of the intellectually challenged people, having borderline to mild intellectual deficits. 30 students (boys and girls) of Karachi Vocational Training Centre were selected. The students were attending the inclusive sports for 200 minutes per week. Their memory, gross and fine motor as well as learning was assessed. Evaluation was conducted. The findings showed that the 30 students who were engaged in inclusive sports engaged socially more willingly and had improvement in cognitive, fine /Gross motor skill development hence improving independent life skills. Hence, this shows that Inclusive sports training facilitates the induction and training of students in vocational training which leads towards inclusion i.e job placement in the mainstream society.

KEYWORDS

Intellectual disabilities (ID), Inclusive Sports Program (ISP), Vocational Training Skills (VTS), Students with Intellectual Disabilities (SWID), Mild Intellectual Disabilities (MID), Moderate Intellectual Disabilities (MDID)

INTRODUCTION

The intellectually challenged have been a famed marginalized segment of our population. Since decades they have been kept apart from the social system that exists within each culture. The intellectually challenged can learn new skills and become integral contributors of society if they are exposed to engaging teaching techniques that cater to mostly all faculties of their brain. Therefore, it is vital that the technological aspect that enhances and consolidates them to learn and implement be probed further so that special education needs enter the paradigm that they deserve. Inclusive sports education is the latest trend in the field of education and therapy. For the intellectually challenged to learn and apply it is the need of the hour to teach them through a myriad of tools that enable the brain to respond to experiences. It is important to investigate the effects of inclusive sports and games on the different faculties of the intellectual challenged, from cognitive to their gross and fine motor movements: all that will enable them to socialize and lead an independent life and engage in employment within the mainstream society.

Many sport centres provide activities and sports that involve different levels of involvement. Participants are allowed to choose games and recreational activities based on their own terms. The primary purpose of all those activities is fun and quality time along with skills development that can be applied in other walks of life. However, participation in these elite games require highest level of commitment and skills regardless of the mental health of participants (Pensagaard et al., 2002). The impact of adaptive sports and recreational activities among intellectually challenged individuals is backed up by very limited research as indicated by (Groff et al., 2001). According to them, there is limited correlation between negotiation skills and the ability to create positive images and to challenge negative stamina regarding disability has very less to do with these physical activities.

However as per (Shaeffer et al., 2001), inclusive sports have provided a platform to these intellectually challenged individuals which enable them to overcome negative images and promote empowerment and leadership. According to (Le Clair et al., 2011), inclusion in sports is not just being a part of a team but lacking sport spirit. It is more than that. Different factors like age, gender, ethnicity, class, and age influence sport spirit. Team players should teach how to accept other despite their shortcomings and

other problems and how to work in a team altogether. This increase the lessons and skillsets that players will learn and will be able to positively influence them and the society. Many participants just enrolled themselves for the sake of playing only. While others, take this as a learning opportunity to contribute and learn in return, different skillsets that they are able to later apply in their professional and personal life.

Inclusive sports play an important part in developing skillsets of people with intellectually challenged. (Smith et al., 2015). There are many factors that influence this learning process. Age, gender, level of handicappers, degree to which other team members are ready to compromise and understanding level of all team members play an important role. Learning skills like negotiation skills, leadership and team building allow these participants to influence those around them and to create a positive image of their limitations thereby creating awareness.

In Pakistan, estimated number of persons living with disabilities vary between 3.3 million and 27 million, depending on whether they are based on government statistics (the last census which measured the prevalence rates was taken in 1998) or whether they come from other agencies. The 5th population and Housing census conducted in 1998 identified the population of persons with disabilities in Pakistan to be 2.38% of the entire population. However, as per the 6th population and Housing census of 2017, the percentage has gone down to less than 0.48%. The Special education Department has successfully established 302 special education institutes at primary, secondary and university level, with the capacity to cater around 35,000 differently abled students (23rd March 2020).

LITERATURE REVIEW

Inclusive sports mean that people with or without intellectual disabilities can enjoy same sports under equal opportunities. Inclusive sports provide an opportunity to all players to achieve their best and to enjoy and experience joy and happiness that comes from this physical act. Inclusive sports are important because of a variety of reasons. They improve physical health, provide a platform of friendship and mutual understanding, teach empathy and acceptance and helps in attaining independent life skills.

Sports provide a vehicle for individuals to develop self-confidence, self-esteem, and self-realization, all of which are necessary for leading more autonomous lives and making personal decisions. Sports foster a healthy lifestyle, which enhances players' physical and emotional well-being, as previously said. However, for such advantages to be realised, sports must be practised on a regular and intense basis, which may

explain why this outcome has yet to be realised for many people with intellectual disabilities. In addition, other factors such as food, nutrition, smoking, and alcohol use might counteract the benefits of exercise. To reconcile the cultures of sport and disability, however, personnel from both traditions must make adaptations. In the context of disability services, this means:

Using person-centered evaluation methods, a concentration on people's strengths and goals rather than their weaknesses, including involvement in sports and other comparable activities as part of therapeutic and care methods. A focus on methods that will improve people's lives, notwithstanding the additional problems they pose to current practises. A re-evaluation of health and social care workers' training curricula in connection to sports involvement, as well as an awareness of how this might be launched and sustained.

Examining the talent mix within services and recognising the value that sports and associated professionals may bring to people's lives. A shift away from situating interventions in clinics or care settings and toward recruiting and supporting available personnel such as family members and sports and leisure staff in the person's natural contexts. Identifying role models and peer trainers among passionate players with intellectual disabilities to participate in all of the aforementioned activities as partners. In the same way, inclusive sports must be adapted to satisfy the demands of individuals with intellectual disabilities (Hassan et al., 2014). This will entail a commitment to fair opportunity at all levels of sports governing organisations.

Understanding how certain sports may be altered to allow these players to participate actively, preferably on an equal footing with their non-disabled counterparts. Coaches will need to learn more about how to connect with and create relationships with players who have intellectual challenges. If team members want to create a friendly workplace, they will need comparable insights. Coaches' responsibilities will go beyond sports instruction, as they must be compassionate and receptive to their players' other needs. Acceptance that athletics are both a means to an end and a pleasurable pastime. Individual participants' intended goals should be specified, and progress toward them should be tracked. This will assist to validate their accomplishments.

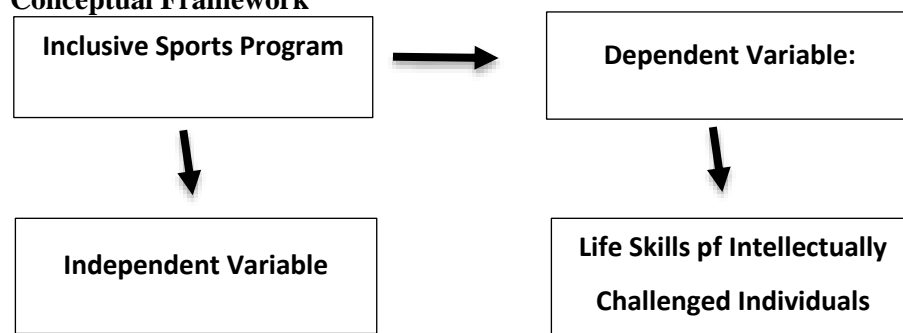
There is a greater emphasis on training rather than competition, yet competition may still be beneficial when done properly, desire to collaborate with other authorities and exchange information and expertise. As young people with intellectual disabilities have to go through tough time in order to mark their identity in a world which continuously question their existence and contribution. Active participation in

inclusive sports provide these young people a platform through which they can sharpen their negotiation skills.

In this literature review, we will be discussing impact of inclusive sports on independent life skills of intellectually challenged individuals. Many researches were conducted to find the impact of inclusive sports in lives of intellectually challenged individuals. In order to find the impact of inclusive sports in young intellectually challenged kids, (Smith et al., 2015) conducted a research in which they choose 4 young kids out of 53 kids with a number of mild intellectually disabilities. The main focus of this study was to find the impact of inclusive sports in the identity formation of young kids with disabilities. These 4 kids actively participate in sports in their schools and in community as well. According to this study, sports have the potential to influence the lives of young intellectually challenged by teaching them skills that they can later incorporate in their lives; allowing them to make a positive difference in the quality of their lives.

However, mere participation, does not guarantee automatic improvement in self-esteem of all young people. There are other complex external factors that influence inclusive sports experience. Some of these factors include gender, social support, awareness among other not mentally impaired peers and colleagues, and geographical location.

Conceptual Framework



RESEARCH OBJECTIVES

1. To find out the role of inclusive sports on the cognitive development of the intellectually challenged.
2. To find out the role of inclusive sports on the development of fine and gross motor movement skills of the intellectually challenged.

3. To find out the provision of inclusive sports in special education Needs schools of Karachi.
4. To find out the relationship between inclusive sports vocational training and employability of the intellectually challenged.
5. To find out the percentage of employed intellectually challenged people in Karachi.

RESEARCH HYPOTHESIS

1. Inclusive sports and games do not have any effect on the independent life skills of the intellectually challenged individuals.
2. Inclusive sports and games improve the independent life skills of the intellectually challenged individuals.

RESEARCH METHODOLOGY

The study was Exploratory and Descriptive in nature and designed to explore the inclusive sports training facility provided to intellectually challenged students. The data was collected with the help of a questionnaire for the student and the trainer which consisted of 5 and 13 questions respectively. This study also helped to find out the correlation between inclusive sports training, vocational training and job placements i.e. employability. The results were analysed through percentages, graphs and statistical analysis.

Sample

From the total trainees of 140 ID trainees, 30 were selected (male and females). The reason was, as the population being very large in number and vastly distributed. It was very difficult to conduct within the limited resources of the investigator. Hence only 30 students were considered. The following table includes variable, source of data, method of data collection and tool used.

| VARIABLE | SOURCE OF DATA | METHOD OF DATA COLLECTION | TOOL USED |
|--------------------------|------------------------------------|---------------------------|--|
| Inclusive Sports Program | Inclusive Sports Program and Games | Questioning | Inclusive Sports Questionnaire focusing on cognitive and motor development |

Description of the tool

The Inclusive sports program Questionnaire was developed by the researcher. It contains questions related to the performance of the student during the therapy and

training period. This is assessed by questioning the student. The questions related to cognitive and motor development are asked by the researcher from the teacher. The level of socialization, perception, reception and motor movements are assessed by the researcher during an interview with the student. Consist of questions to explore the Inclusive sports program facilitating the vocational training skills offered for the SWID based on the levels of intellectual disabilities.

Basic Level, Intermediate Level, Advance Level

Testing technique

The selected sample size for conducting the research is 30, therefore, we have decided to apply Z-test to evaluate the significance of hypothesis of our study.

Z-Test

The z-test is a statistical technique that may be used to compare or determine the significance of different statistical variables, especially the mean in a sample from a normally distributed population or between two independent samples. The level of perception, reception and motor development are assessed areas of cognitive development and personal development are assessed by the researcher through a questionnaire developed by the researcher.

Procedure of data collection and analysis

The questions in the questionnaire were read out to the informants- therapists/sports trainers. The researcher recorded the information collected from the informants This has been done quantitatively as several sub parameters of the both study areas that is cognitive development and motor skill development are graded in terms of points.

Behaviour skills

Communication skills

Daily living skills

Life skills

Mobility skills

Safety skills

Self-care skills

Social skills

RESULTS

We have presented the demographic details of the respondents of the survey in tabular form and by graph, using descriptive statistics, which are as follows:

Table 1: By Gender

| | Data Range | Frequency | Percent | Cumulative Percent |
|--------------|-------------------|------------------|----------------|---------------------------|
| Valid | Male | 18 | 60.0 | 60.0s |
| | Female | 12 | 40.0 | 100.0 |
| | Total | 30.0 | 100.0 | |

The demographic details as per Table 4.1. shows that 60% of the respondents were male, whereas, 40% were female.

Table 2: Age in year

| | Data Range | Frequency | Percent | Cumulative Percent |
|--------------|-------------------|------------------|----------------|---------------------------|
| Valid | 18 - 25 years | 5 | 16.7 | 16.7 |
| | 26 - 31 years | 11 | 36.7 | 53.4 |
| | 32 – 38 years | 6 | 20.0 | 73.4 |
| | 39 years or above | 8 | 26.6 | 100.0 |
| | Total | 30.0 | 100.0 | |

As per Table 4.2., 36.7% respondents belong to the age group of 26 – 31 years, 26.6% were of 39 years or above age, 20% lies between the age group of 32 – 38 years and remaining 16.7% were of 18 – 25 years age.

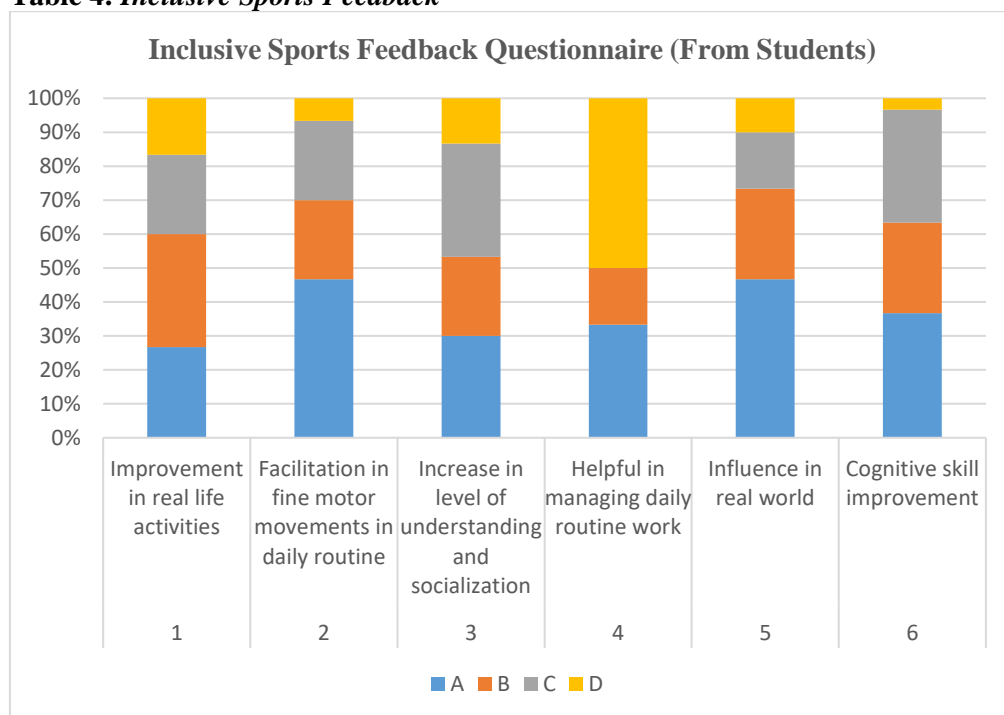
Presentation of Responses

The result obtained through questionnaires and general/personal observations have been presented in the form of table and graph.

Table 3: Responses of Students

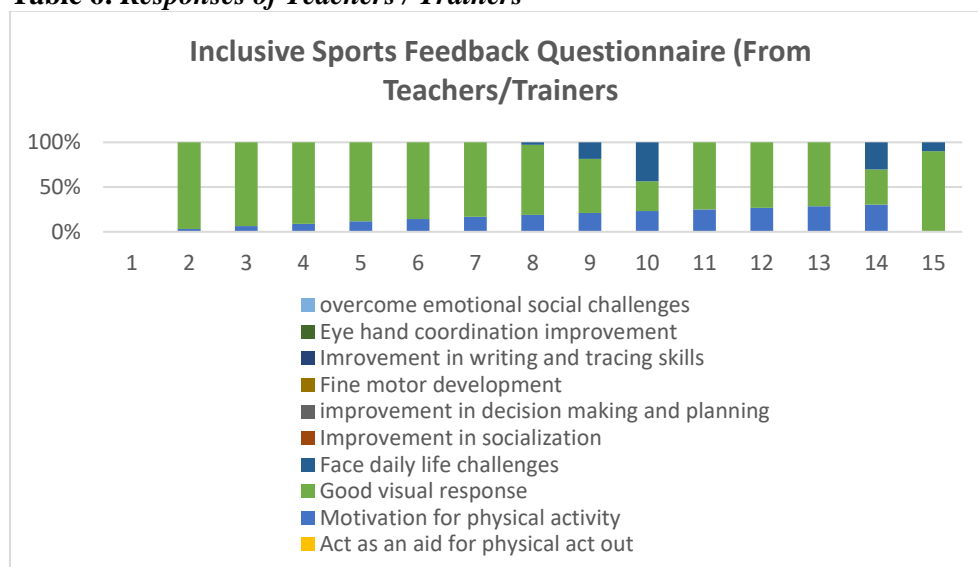
| No. | Questions | A | B | C | D |
|------------|---|----------|----------|----------|----------|
| 1 | Improvement in real life activities | 22 | 12 | 1 | 1 |
| 2 | Facilitation in fine motor movements in daily routine | 14 | 7 | 7 | 2 |

| | | | | | |
|---|--|----|---|----|----|
| 3 | Increase in level of understanding and socialization | 9 | 7 | 10 | 4 |
| 4 | Helpful in managing daily routine work | 10 | 5 | 0 | 15 |
| 5 | Influence in real world | 14 | 8 | 5 | 3 |
| 6 | Cognitive skill improvement | 11 | 8 | 10 | 1 |

Table 4: Inclusive Sports Feedback**Table 5: Responses of Teachers / Trainers**

| No. | Questions | Yes | No |
|-----|------------------------------------|-----|----|
| 1 | Helpful in daily life | 28 | 2 |
| 2 | Improvement in academics | 30 | 0 |
| 3 | Act as an aid for physical act out | 30 | 0 |

| | | | |
|----|---|------------|-----------|
| 4 | Helpful to enhance intelligence | 30 | 0 |
| 5 | Motivation for physical activity | 30 | 0 |
| 6 | Good visual response | 30 | 0 |
| 7 | Face daily life challenges | 29 | 1 |
| 8 | Improvement in socialization | 23 | 7 |
| 9 | improvement in decision making and planning | 13 | 17 |
| 10 | Fine motor development | 30 | 0 |
| 11 | Improvement in writing and tracing skills | 30 | 0 |
| 12 | Eye hand coordination improvement | 30 | 0 |
| 13 | Overcome emotional social challenges | 17 | 13 |
| | | 350 | 40 |

Table 6: Responses of Teachers / Trainers**Interpretation**

We have performed Z test to evaluate whether the hypothesis of our studies is valid or not and we have obtained the results, which are as follows:

Table 7: Statistical Results

| | Inclusive Sports | Improvement of Intellectual Skills |
|---------------------|------------------|------------------------------------|
| Mean | 1.366666667 | 1.066666667 |
| Known Variance | 0.516091954 | 0.064367816 |
| Observations | 30 | 30 |
| Hypothesized Mean Z | 0 | |
| P(Z<=z) one-tail | 2.156730199 | |
| z Critical one-tail | 0.015513346 | |
| z Critical two-tail | 1.644853627 | |
| | 0.031026693 | |

According to the statistical analysis, if the calculated value of Z lies between the defined range of critical value of Z (i.e. -1.645 to +1.645) at the level of significance of $\alpha = 0.05$, the null hypothesis will be accepted, whereas, the research hypothesis will be rejected. Further, considering the level of significance i.e. P value, if the calculated P value is greater than the assumed value of P i.e. 0.05, the null hypothesis will be accepted and research hypothesis will be rejected.

Considering the results given in Table 4.2.1 above, it has been observed that the null hypothesis of our study has been rejected as the calculated value of Z is greater than the critical value of Z (i.e. $2.157 > 1.645$) as well as the obtained P value is less than the assumed P value (i.e. $0.031 < 0.05$). This interprets that the research hypothesis has been accepted and considered to be valid as per the responses of the individuals participated in the survey, by filling out the questionnaire.

So, as per the analysis it is concluded that “Inclusive sports and games improve the independent life skills of the intellectually challenged individuals”.

DISCUSSION

It has been observed that due to constraint of time and cost, we have conducted the survey among the target population of the study. Both genders have been involved in the study to get results for the improvement in male and female through inclusive sports.

The study depicts that the students got socially improved with an improvement in cognitive development, fine and gross motor skills. This clearly shows that inclusive sports and games have a positive impact on IC child's social, cognitive and motor development hence having an impactful improvement in independent daily life skills.

As per Jean Piaget's theory of cognitive development children move through four different stages of mental development. His theory focuses not only on understanding how children acquire knowledge, but also on understanding the nature of intelligence which clearly defines the role of interaction through activities, games and sports. As per Vygotsky's theory revolves around the idea that social interaction is central to learning. This means that the child has to go through different trainings and activities to build connections based on social interactions.

Inclusive sports and games do not have any effect on the independent life skills of the intellectually challenged individuals. According to this hypothesis (H0), students going through regress sports activities would not have any positive effect on their cognitive and motor development hence inclusive sports not being the key to be inducted into vocational training and heading towards employment. Inclusive sports and games improve the independent life skills of the intellectually challenged individuals. According to this hypothesis (H1) inclusive sports training is has a positive result in cognitive development, fine and gross motor development of the intellectually challenged. It also helps to find out the relationship/co relation between inclusive sports, vocational training and employability of the intellectually challenged.

RECOMMENDATIONS

On the basis of the results of the study, a model of inclusive sports training facilitating vocational training of the intellectually challenged students that's ends upto employment.

The model comprises of five steps.

The first step is the need analysis based on assessment of the intellectually challenged students regarding their, capabilities, aptitude, strengths, stamina, limitations etc.

The second step involves the designing of sports activities and games on the basis of need analysis and the resources available. The resources include physical trainer for sports training, training equipment according to the needs and a conducive learning environment. The training is then conducted and also evaluated time to time as and when required.

The third step involves the implementation of the sports training program which is again evaluated based on the results of cognitive, gross and fine motor developments of the students.

The fourth step is to induct the student in vocational training after the desired development in cognitive, fine and gross motor development and the respective evaluation.

The fifth step is the ultimate goal of all trainings i.e successful employability.



REFERENCES

- Anderson, E. M. , & Clark, L. (2019). Disability in adolescence. London: Methuen
- Ashton-Shaeffer, C., (2018). Meaning of sport to adults with physical disabilities: A disability sport camp experience. *Sociology of Sport Journal*, 18(1), 95-114. Barber, B. L., Eccles, J. S., & Stone, M. (2018).
- Dreier, O.2018. *Psychotherapy in Everyday Life*. New York: Cambridge University Press
- Groff, D., (2019). Exploring the identity formation of youth involved in an adapted sports program. *Therapeutic Recreation Journal*, 35(4), 318-332.
- Greer, K. R. (2019). Physical Activity as a Normalizing Experience for School-Age Children with Physical Disabilities: Implications for Legitimation of Social Identity and Enhancement of Social Ties. *Journal of Sport and Social Issues*, 24(4), 395–414
- Gibson, H. J., Autry, C. E., & Hansen, C. S. (2015). Meaning of sport to adults with physical disabilities: A disability sport camp experience. *Sociology of Sport Journal*, 18(1), 95-114. Barber, B. L., Eccles, J. S., & Stone, M. (2015)
- Kissow, A.-M., 2015. Participation in physical activity and the everyday life of people with physical disabilities: a review of the literature. *Scandinavian Journal of Disability*

-
- Research, 17(2), pp.144–166
- Kleiber, D. (2019). Exploring the identity formation of youth involved in an adapted sports program. *Therapeutic Recreation Journal*, 35(4), 318-332
- Llewellyn, G., Shuttleworth, R. Sport in the Lives of Young People with Intellectual Disabilities: Negotiating Disability, Identity and Belonging. *Journal of Sport for Development*. 2019; 3(5): 61-70
- Le Clair, J. (2019). Global organizational change in sport and the shifting meaning of disability. *Sport In Society*, 14(9), 1072-1093
- Smith, L., Sport in the Lives of Young People with Intellectual Disabilities: Negotiating Disability, Identity and Belonging. *Journal of Sport for Development*. 2015; 3(5): 61-70
- Taub, D. E., & Greer,. Physical Activity as a Normalizing Experience for School-Age Children with Physical Disabilities: Implications for Legitimation of Social Identity and Enhancement of Social Ties. *Journal of Sport and Social Issues*, 24(4), 395–414.
- Pensgaard, A., & Sorensen, M. (2019). Empowerment through the sport context: A model to guide research for individuals with disabilities. *Adapted Physical Activity Quarterly*, 19, 48-67
- Røn Larsen, M.2011. Cooperation and Conflict about Kids in Trouble – the Organisation of Special Efforts in School].
- Wegdwood, N., Sport in the Lives of Young People with Intellectual Disabilities: Negotiating Disability, Identity and Belonging. *Journal of Sport for Development*. 2015; 3(5): 61-70
- Shuttleworth, R.; Sport in the Lives of Young People with Intellectual Disabilities: Negotiating Disability, Identity and Belonging. *Journal of Sport for Development*. 2015; 3(5): 61-70